2002
Annual Plan

Submitted to the
Vermont Public Service Board
September 4, 2001

Efficiency Vermont
your resource for energy savings

Efficiency Vermont
2002 Annual Plan

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1. INTRODUCTION AND SUMMARY

Vermont Energy Investment Corporation is pleased to submit this **Efficiency Vermont Annual Plan** for 2002 to the Vermont Public Service Board, presenting plans for the third year of operation for Vermont's "Energy Efficiency Utility". This plan serves two purposes:

1) to present plans to modify current statewide core program designs, to be implemented in 2002 or sooner, and;
2) to propose an updated and revised Efficiency Vermont budget for 2002, reflecting reallocation of funds among programs, carry-over of funds from 2001.

Complete background and program descriptions for energy efficiency programs currently implemented by Efficiency Vermont are contained in the Department of Public Service (DPS) "Energy Efficiency Plan," which provides the overall intent, design and specifications for each program. Certain minor enhancements and exceptions to program designs in the DPS Plan have been incorporated into the Efficiency Vermont Contract with the PSB, by reference to the VEIC Efficiency Vermont Proposal and specifications of the Contract Scope of Work (Attachment A to the Contract). For the sake of brevity and simplicity, these descriptions and specifications of current program designs are not presented in this submission, but are assumed as the base from which modifications are proposed.

In October 2000, VEIC submitted an Annual Plan for 2001 to the PSB, which contained the first round of proposed modifications to the initial core program designs, as well as proposed plans for "Emerging Markets Initiatives (EMI)." This Plan was accepted by the PSB and served as guidance for Efficiency Vermont implementation of program modifications and Emerging Markets Initiatives in 2001. In general, current Efficiency Vermont program designs are working well and do not require major changes. Minor adjustments to these programs have been made, based on implementation experience of more than a year. Accordingly, Efficiency Vermont is planning relatively modest, incremental changes, or no changes to most existing programs.

The only program in which significant modifications are proposed is the Residential New Construction program. In this program, a number of changes are planned regarding program standards, incentives, marketing and delivery, to become effective January 1, 2002. These modifications are the result of an intensive cooperative effort with Vermont Gas Systems (VGS) to integrate the VGS and Efficiency Vermont programs, with an anticipated result of greater simplicity, less marketplace confusion and more economical program implementation. These changes, as well as those proposed for all other programs, are presented in detail in Section 2 of this submission.

As noted above, the 2001 Annual Plan included a proposed portfolio of Emerging Markets Initiatives. Candidate initiatives were identified through a process that included consultation and input from the Efficiency Vermont Advisory Committee, electric utility staff, and other business and consumer representatives. The resulting portfolio of initiatives submitted in last year's Annual Plan included four Commercial and Industrial EMIs (with three additional concepts to be investigated further) and three residential EMIs.

2001 implementation and 2002 plans for these initiatives are presented in Sections 2.B. and 2.G. of this Plan. In addition, the 2001 Annual Plan mentioned a possible "test" of a "limited solicitation in 2001 for additional proposals regarding specific, concrete projects, rather than more generic program design concepts, that would address EMI objectives." This option has been deferred indefinitely due to:

- the extent to which customer-initiated and vendor-initiated projects have come to Efficiency Vermont without formal solicitation, and;
- the lack of excess funds to support such solicitation as a result of higher than anticipated participation and spending in a number of programs.

Since its inception, Efficiency Vermont has actively solicited input from a range of interested parties regarding prospective modifications to existing programs. In 2001, Efficiency Vermont has continued this process by soliciting ideas from staff and subcontractors, and by engaging in a variety of activities designed to reach external parties. These activities have included:

- ongoing dialogue with the DPS;
- bi-monthly meetings of the Efficiency Vermont Advisory Committee, and committee review of this 2002 Plan prior to filing;
- targeted stakeholder meetings on specific topics, such as the Commercial Energy Opportunities Program Act 250 comprehensive track (with selected architects, engineers and design build firms), the Residential Energy Efficiency Program comprehensive track (with affordable housing developers, Rural Development, design engineers, etc.), and the school energy management initiative;
- conversations with participants at the Building Solutions 2001 conference;
- one-to-one meetings with potential partners or participants, including the Vermont Energy Education Program, Vermont Association of Independent Colleges, Vermont Businesses for Social Responsibility, Vermont Ski Areas Association, Small Business Development Center, local Chambers of Commerce, county economic development organizations, Northern New England Trades Women and Vermont Consumers' Energy Cooperative;
- discussions about financing with lending institutions, including Vermont Development Credit Union, Vermont Housing Finance Agency, Vermont Economic Development Authority and Chittenden Bank;
- presentation and discussion with the public at the Vermont Energy Forum, held at the University of Vermont.

In Section 3, a revised budget for 2002 is presented, reflecting reallocation of funds among programs and estimated carry-over of funds from 2001.

2. CHANGES TO EXISTING CORE PROGRAMS

This section is intended to address the contractual requirement that states "the Board will approve Core Program designs on an annual basis at the same time that it approves the budget for those Core Programs. Accordingly, … the Contractor shall submit the Core Program designs it proposes to implement during the following calendar year" (Contract Attachment A, p. A-11). This Plan presents brief program descriptions including updates on program status and discussion of planned program changes that Efficiency Vermont proposes to implement in 2002.

A. Commercial Energy Opportunities Program

<u>Program Description</u>

The Commercial Energy Opportunities (CEO) program targets market-driven efficiency opportunities in commercial, industrial, governmental and institutional facilities. The program focuses on capturing savings at the time of construction, major renovation/rehabilitation or natural replacement of equipment. Products and services include customer financial incentives and technical assistance provided by Efficiency Vermont, and design assistance from third party experts. CEO offers "prescriptive" financial incentives for lighting, motors, and unitary heating, ventilation and air conditioning (HVAC) equipment. CEO also offers site-specific, "custom" incentives for cost-effective efficiency measures that do not meet eligibility criteria for prescriptive incentives.

The new CEO comprehensive track provides two new ways for Efficiency Vermont to pursue comprehensive design. The "simple" path includes enhanced prescriptive lighting and HVAC incentives for both design and measures. The "enhanced" comprehensive path provides customers a customized approach including detailed design assistance, building simulation modeling, analysis of a comprehensive set of efficiency alternatives and a custom incentive package.

Beginning in December of 2001, Efficiency Vermont expects to offer commissioning services, and/or funding for these services, for selected technologies. These services will most likely focus on variable frequency drive projects and compressed air system upgrades.

Customer-proposed projects for customized commissioning incentives will also be considered. One such project is currently being evaluated for Efficiency Vermont participation.

Program Changes

CEO will begin serving market-driven dairy farm opportunities in 2002 as the Dairy Farms Program undergoes a transition (see Dairy Farms Program section below). Incentive levels for prescriptive lighting and variable frequency drive applications will be comparable to those currently offered under the Dairy Farms Program. Outreach will be targeted to reach dairy industry trade allies and members of the dairy network, such as the Department of Agriculture.

CEO is evaluating prescriptive incentives and treatment for certain measures that are currently treated as custom. The following measures are under consideration for new prescriptive incentives and forms:

- installation of VendingMisers™. These devices are a combination sensor/control technology used in conjunction with refrigerated vending machines. VendingMiser™ sensors determine the level of vending machine use, and then shut off lighting and reduce refrigeration set points at times of infrequent activity. VendingMisers™ offer substantial efficiency improvements to refrigerated vending machines and are being successfully promoted in efficiency programs in the Pacific Northwest.
- TP-1, dry-type transformers. If a prescriptive incentive is offered, it will mirror incentives currently promoted by other regional utilities and by the Northeast Energy Efficiency Partnership.
- HVAC equipment not covered under the regional CoolChoice program. This may include incentives for unitary HVAC equipment with capacities greater than 30 tons and/or chillers.

CEO will evaluate the costs and benefits of participating in the regional MotorUp and CoolChoice programs prior to committing to 2002 participation levels. The CEO program will also evaluate and adopt, as appropriate, changes to 2002 incentive levels or efficiency eligibility criteria established by these regional programs. These changes may include, but are not limited to:

- modification of qualifying efficiency levels for motors, to become consistent with revised efficiency standards jointly developed by the Consortium for Energy Efficiency and the National Electrical Manufacturers Association;
- elimination of HVAC Tier 1 efficiency levels incentive eligibility;
- addition of incentives for dual-enthalpy HVAC economizers.

Impacts on Program Goals, Budgets and Cost-Effectiveness

Changes incorporated into the CEO program will be accomplished within the proposed budgets provided in Section 3. The cost of adding the Dairy Farm measures to CEO could have a slight negative impact on program cost effectiveness if a high level of participation occurs.

The process to determine whether or not to move to prescriptive incentives for the above mentioned measures includes:

- an assessment of measure volume;
- consideration of the potential for vendor driven prescriptive projects (which often reduce staff time required);
- consideration of the stability of the technology (if the technology changes frequently, prescriptive forms may be more of a hindrance than a help).

Program changes should, over time, result in greater overall net benefits and greater market penetration and transformation.

B. Commercial & Industrial Emerging Markets Program

The initiatives that comprise the 2001 Commercial and Industrial Emerging Markets (CIEM) program were proposed in the 2001 Annual Plan submitted to the PSB in October of 2000. Efficiency Vermont is continuing to develop these initiatives as outlined in the 2001 plan. The following initiative descriptions provide an overview of the current status and future direction of CIEM initiatives for the coming year. Changes to these initiatives are minimal.

Large Retrofit Initiative

Initiative Description

The Large Retrofit Initiative offers technical assistance to address retrofit opportunities in commercial, industrial, governmental, non-profit, and institutional sectors. Financial incentives are offered on a custom basis for these projects. The Large Retrofit Initiative requires a high level of staff time - both in business development and in implementation - and significant incubation time as customers assess unplanned projects in relation to corporate or facility priorities.

While the intent of this initiative is to focus on large commercial and industrial customers, participation by smaller customers is not prohibited. Savings are promoted among all end-uses. Program participants are identified through outreach by Business Development Specialists and CIEM staff, as well as through referrals from some utilities, particularly Central Vermont Public Service.

CIEM is continuing to focus on strategies for cost-effective, comprehensive compressed air system upgrades. Efficiency Vermont has over 20 comprehensive assessments of industrial compressed air systems, many of which were inherited from the utility sponsored DSM programs. Many barriers have prevented these projects from moving into implementation. Strategies currently in use or being evaluated to address these barriers include:

- loan of leak detection equipment with accompanying training and tracking of corrected leaks, coupled with a two tiered incentive structure to obtain customer commitment to pursue other measures under an ensuing contract;
- installation of metering equipment to enable customers to better understand compressed air system performance over time;
- packaging of all measures in one contract that extends over a timeframe acceptable to the customer. Multiple year contracts are anticipated.
- assisting customers in obtaining needed information that was not provided in earlier reports, including competitive bidding for additional expert technical assistance;

- developing a quasi turnkey implementation contract through which an Efficiency Vermont project manager provides construction management services for the customer.

The majority of retrofit measures are promoted through custom incentives. These incentives take into account customer payback, level of savings, measure cost, and customer needs. When eligible, retrofit participants can receive prescriptive incentives for lighting, motors and HVAC equipment through the CEO program.

Where possible, Efficiency Vermont leverages and coordinates Large Retrofit Initiative efforts with relevant utility initiatives, such as load response or Distributed Utility Planning.

Initiative Changes

Beginning in 2002, this initiative will incorporate dairy farm retrofit opportunities, as the Dairy Farm program will terminate by the end of 2001. No other changes to this initiative are planned for 2002.

Impacts on Initiative Goals, Budgets and Cost-Effectiveness

The addition of dairy farm retrofit projects could reduce the overall cost effectiveness of this initiative if participation levels are high. The Large Retrofit Initiative incentive budgets and MWh goals for 2001 and 2002 have been reduced because the development period for these projects often exceeds two years. This change also reflects the Efficiency Vermont prioritization of lost opportunities over discretionary retrofit. The impact of these modifications is reflected in the budget, kWh, and cost-effectiveness goals set forth in Section 3 of this plan.

Schools Facilities Initiative

Initiative Description

The School Facilities Initiative focuses on understanding and overcoming the unique barriers to the implementation of efficiency measures, in both new construction and retrofit of school facilities. The goals of this initiative are to:

- ensure that new school design and construction are energy efficient, including the use of daylighting when possible;
- equitably distribute retrofit opportunities across the state;
- support implementation of Indoor Air Quality regulations through the use of energy efficient ventilation systems.

To develop an optimal market position and to address barriers, Efficiency Vermont is working with the Vermont Superintendents Association (VSA) School Energy Management Program (SEMP), the Vermont Department of Education, local school boards, school personnel, Vermont Energy Education Program, and design firms specializing in school construction. Current activities include:

- refining the relationship between Efficiency Vermont and SEMP, which is 60% funded by Efficiency Vermont;
- strategic outreach to design professionals involved in school construction projects;
- working with the Department of Education to increase the inclusion of efficiency in school new construction and major renovation projects.

Initiative Changes

There are no changes planned for this initiative in 2002.

Impacts on Initiative Goals, Budgets and Cost-Effectiveness

Savings goals will be tracked though CEO and Large Retrofit Initiative projects.

Design Lights Consortium

Initiative Description

Design Lights Consortium (DLC) is a regional market transformation initiative promoting high quality and energy efficient lighting design to individuals who are not lighting design professionals and who are involved in lighting decisions. DLC has developed a series of easy-to-use training guides that simplify good lighting design practices. These guides promote the use of state-of-the-art fixture and control technologies and promote efficiency through lighting design and fixture placement. Individual guidelines have been developed for different Commercial and Industrial building types (e.g., schools, offices, high-bay warehouse, small retail, etc.).

Efficiency Vermont strategically distributes the guides and case studies to key players in relevant design projects and through training opportunities such as at the Building Solutions 2001 Conference and at the Bright Ideas Breakfast lighting materials trainings hosted by CEO.

Initiative Changes

As a sponsor for this initiative, Efficiency Vermont will evaluate and adopt, as appropriate, program changes that are made collectively by all regional sponsors. An evaluation of DLC is being completed, and will likely identify program changes for 2002. Changes may include:

- Revisions to the DLC design guides for classrooms, small offices and small retail.
- A new industrial low bay guide.
- A shift in approach to training seminars from a few, large group presentations to more numerous small group presentations, to both trade allies and end users.

Impacts on Initiative Goals, Budgets and Cost-Effectiveness

N.A.

Water and Wastewater Initiative

Initiative Description

Efficiency Vermont is continuing to investigate efficiency opportunities in municipal, industrial, and private water and wastewater systems across the state. CIEM is working with the Agency of Natural Resources to characterize Vermont's water and wastewater treatment facilities. One subcontractor, Demand Management Institute (DMI), has significant expertise in the efficiency opportunities for larger water and wastewater facilities. Efficiency Vermont is working DMI to determine which measures are also cost effective for the smaller facilities typically found in Vermont, and to identify opportunities that should be captured at time of replacement and those that should be promoted as retrofit projects. Relationships are also being developed with engineers who work in these facilities and have become involved in several planned upgrade projects.

As program recommendations are developed, they will be incorporated into specific applications via CEO or Large Retrofit Initiative projects. Efficiency Vermont will pursue opportunities to leverage municipal, state and federal resources, including those at the municipal bond bank.

Initiative Changes

There are no changes planned for this initiative in 2002.

Impacts on Initiative Goals, Budgets and Cost-Effectiveness

N.A.

Variable Frequency Drive Training Initiative

Initiative Description

Efficiency Vermont is working with Vermont Technical College in the development of a training center at Blair Park, Williston, which will offer instruction in variable frequency drives application, set-up and operation. This facility is under construction and Efficiency

Vermont is supporting the purchase of drive equipment and providing input on course materials. Courses at the center will target two audiences critical to Efficiency Vermont:

- Electricians – who are required to have 30 hours of training to maintain their certification. That training will now include variable frequency drives and information on Efficiency Vermont.
- Facilities maintenance staff - whose increased knowledge of efficient equipment and its operation is likely to improve market penetration and savings persistence of that equipment.

Initiative Changes

There are no changes planned for this initiative in 2002.

Impacts on Initiative Goals, Budgets and Cost-Effectiveness

N.A.

C. Dairy Farms Program

Program Description

This program targets dairy farm retrofit, new construction, and renovation efficiency opportunities. It provides farmers with no-cost technical assistance and financial incentives, including cash and low-cost financing. In accordance with our Contract, the program will terminate on December 31, 2001. As this date nears, Efficiency Vermont is transitioning Dairy Farms services to the CEO program and the Large Retrofit Initiative.

Program Changes

While the Dairy Farms program will no longer exist as a stand-alone program, Efficiency Vermont will continue offering services to dairy farmers through its CEO program and Large Retrofit Initiative. To simplify farmer participation, maximize market penetration, and minimize lost opportunities, Efficiency Vermont will promote prescriptive incentives for new vapor-proof lighting and variable frequency drives (VFDs). These two technologies represent the majority of cost-effective, market-driven farm efficiency opportunities that will be addressed under CEO. Efficiency Vermont will develop a new prescriptive incentive form that will include VFDs and will incorporate lighting measures currently used for farm new construction and renovation. For retrofit projects, Efficiency Vermont will continue to analyze measures on a custom basis and to provide the currently available levels of incentives; 60% of measure cost.

Impacts on Program Goals, Budgets and Cost-Effectiveness

N.A.

D. Efficient Products Program

Program Description

This program aims to increase the sale and purchase – primarily through retail stores – of ENERGY STAR® lighting products (bulbs and fixtures) and of ENERGY STAR® appliances. This is accomplished through a comprehensive and coordinated set of market interventions including consumer rebates, recruitment and training of retailers, marketing (particularly through point-of-sale promotion in retail stores), and easy-to-use catalog and on-line mail ordering options.

Program Changes

No major program changes are currently planned for 2002, although minor program modifications and enhancements may be implemented as a response to the market. As retail prices gradually decrease and consumer demand grows, rebate amounts may be adjusted slightly downward, as they were several times in the past year. As greater success is achieved with some product types, emphasis may shift to other types. The program may also consider extending promotions and/or incentives to additional products.

Impacts on Program Goals, Budgets and Cost-Effectiveness

N.A.

E. Residential Energy Efficiency Program

Program Description

The Residential Energy Efficiency Program (REEP) provides comprehensive energy services to reduce energy use and costs in low-income multifamily housing. In both market-driven and retrofit projects, REEP works with owners of multifamily, low-income housing to provide a combination of detailed technical assistance and financial incentives to leverage investments in electrical and fossil fuel efficiency. Where possible, REEP coordinates with Vermont's low-income Weatherization Assistance Program agencies and Vermont Gas Systems to leverage resources and provide customers with a single source of efficiency services.

In late 2000 and early 2001, Efficiency Vermont developed and began implementing two major enhancements to the program:

1) Offering developers the option of using a simpler, prescriptive set of efficiency upgrade requirements and incentives for new construction and major rehabilitation projects (previously efficiency standards and incentives were negotiated on a project-by-project basis), and;
2) Working with public housing authorities to more effectively identify and integrate efficiency upgrades into capital planning and applications for U.S. Department of Housing and Urban Development funds.

In addition, in November 2001, Efficiency Vermont will begin implementing a pilot project designed to more effectively encourage owners of private, non-subsidized low-income rental housing to participate in REEP. Although REEP has historically targeted both subsidized and non-subsidized housing, there has been little participation from the non-subsidized segment of the market. This pilot will test a plan (developed in May 2001) to recruit owners of such buildings and to persuade them to make major efficiency investments. The pilot will target electrically heated buildings in Rutland.

Program Changes

No major new program design modifications are planned for REEP in 2002. REEP will focus instead on evaluating the effectiveness of the current program (particularly recent changes) and on necessary finetuning. REEP will focus particular attention on the private, non-subsidized housing pilot effort. Based upon the success of this effort, and upon budget considerations, the program will consider expansion of the pilot into a statewide initiative in 2003.

Impacts on Program Goals, Budgets and Cost-Effectiveness

N.A.

F. Low Income Single Family Program

Program Description

This program provides electric efficiency measures for low-income customers, primarily concurrent with provision of HVAC and thermal shell improvements by the state's low-income Weatherization Program. This "piggybacking" is done through contractual arrangements between Efficiency Vermont and each of the five non-profit agencies that provide low-income weatherization services on the state's behalf. Prior to March 2000, electric utility-sponsored programs addressing this market focused primarily on provision of compact fluorescent lamps and hot water conservation measures for those homes with electric hot water. Starting in late 2000, Efficiency Vermont started expanding the scope of the program to include comprehensive treatment of fuel switching opportunities (both space heat and hot water), installation of efficient light fixtures, replacement of inefficient refrigerators and installation of efficient ventilation systems.

Program Changes

No major changes are planned for this program in 2002. The program will concentrate instead on assuring effective delivery of its expanded scope of offerings.

Impacts on Program Goals, Budgets and Cost-Effectiveness

N.A.

G. Residential Emerging Markets Program

Program Description

In 2001, Efficiency Vermont launched the Residential Emerging Markets Program to target the market with the greatest potential for additional cost-effective energy savings and to address the most pressing efficiency concern of residential customers: Retrofit services. This program has three components:

- Customer-driven: In the fall of 2001, Efficiency Vermont will provide sophisticated, yet easy-to-use software that can help consumers assess and determine opportunities for improving the efficiency of their homes. This software will be provided in a compact disc and through the Efficiency Vermont web site. Additionally, Efficiency Vermont is exploring ways for its customer service staff to provide this service by phone to customers without computers.
- Vendor-driven: Efficiency Vermont will provide free installation of compact fluorescent light bulbs and hot water conservation devices to consumers who pay for a comprehensive, whole house energy audit from a qualified efficiency service provider. In 2001, this offer is being pilot-tested with a few service providers, including some of the state's low-income weatherization agencies.
- Targeted high use: Efficiency Vermont is providing incentives for fuel switching or weatherization services to consumers with very high electric usage, typically associated with electric space heat. Consumers with high water heating usage are also eligible for fuel-switching incentives.

Program Changes

Efficiency Vermont does not plan any major changes to this program for 2002. However, through extensive discussion of new directions for the Residential New Construction program, Efficiency Vermont recently identified a market that may warrant a new emerging markets initiative in 2003: The remodeling/ renovation market. In late 2001 and in 2002 Efficiency Vermont plans to work with Burlington Electric Department, Vermont Gas Systems and others to assess the likely success and to identify key elements of such a program.

Impacts on Program Goals, Budgets and Cost-Effectiveness

N.A.

H. Residential New Construction Program

Program Description

The Residential New Construction Program (RNC) aims to improve the efficiency of new home design and homes undergoing substantial renovation. It addresses all major end uses – heating, hot water, cooling (if any), appliances and lighting. Builders and consumers are encouraged to build homes to the Vermont Star Homes standard. That standard is a combination of the federal ENERGY STAR® standard (representing 22% savings in heating, cooling and hot water consumption relative to the Vermont code), a requirement that 30% of lighting fixtures be efficient, and a requirement that efficient mechanical ventilation be installed. This standard is promoted through a combination of marketing; technical assistance to builders; provision of energy ratings; and incentives for efficient lighting fixtures, refrigerators and ventilation equipment. Builders and/or consumers who do not wish to build to the Vermont Star Homes standard can still receive the program rebates for efficient electric products under what is called the Vermont Advantage offering.

Program Changes

Efficiency Vermont recently completed negotiations with Vermont Gas Systems (VGS) resulting in a new program offering. This new program, to be known as "Vermont Energy Star Homes" will eliminate the differences between Efficiency Vermont and VGS programs. It will also differ from the current RNC program in several ways. Perhaps most importantly, it will have a single, comprehensive efficiency standard (eliminating the piecemeal rebates currently offered under Vermont Advantage). Enrollment for this offering will begin as of November 2, 2001, while issuance of incentive and rebate payments will begin after January 2, 2002. The core requirements will be:

- meeting the ENERGY STAR® standard for building shell and HVAC equipment;
- installing at least four efficient light fixtures in high use locations;
- installing an efficient mechanical ventilation system consistent with the proposed revisions to Vermont's statewide energy code, and;
- for homes with forced air heating or cooling, using hard-ducted returns above the first floor deck.

The incentive structure will also change. Participants with projects meeting the above core requirements will receive:

- a home energy rating;
- a core incentive of $600 in VGS territory or $100 outside of VGS territory;
- $15 for each installed efficient light fixture;
- $25 rebates for each efficient recessed can unit;
- a $700 bonus incentive for homes where at three ENERGY STAR® appliances and at least 10 efficient light fixtures are installed.

The average participant in this new offering will receive approximately the same incentive as the average Vermont Star Homes participant receives today. However, the rebate structure will be simpler, better integrated with incentives currently offered through the Efficient Products Program, and more heavily weighted toward builders who address efficiency opportunities more comprehensively.

Key differences between this new design and the current Efficiency Vermont program design can be summarized as follows:

- Elimination of the lower, Vermont Advantage participation tier. The goals of this change are to eliminate market confusion regarding the definition of an efficient new home and to encourage builders to make more comprehensive investments in efficiency upgrades.
- The new minimum lighting requirement of four efficient fixtures in high use locations is lower than the current Vermont Star Homes minimum of 30% or 10 (whichever is lower). However, Efficiency Vermont expects to compensate for the lower minimum requirement with the change in incentive structure designed to drive participants to higher numbers of fixtures, as outlined in the following item.

- Incentives for light fixtures will be cut in half, to $25 for recessed cans and $15 for most other fixtures. However, these reductions will be offset by an increase of the current $500 appliance bonus incentive (for installing three ENERGY STAR® appliances) to $700 for installing at least three ENERGY STAR® appliances and 10 efficient light fixtures.
- The ventilation requirement will be aligned with the expected change in the statewide energy code.
- The cap on the number of light fixture rebates will be increased from 10 to 20, in part to accommodate use of large numbers of recessed cans in high use locations.
- Supplementary rebates for efficient mechanical ventilation systems will be eliminated, in part due to expected modifications in statewide mechanical ventilation code requirements.
- Builders will receive their energy rating at no cost rather than paying pay for it and receiving reimbursement.
- The Home Energy Rating certifying ENERGY STAR® performance, which is provided to every successful participant, will establish that homes meets statewide energy code ("Residential Building Energy Standards"). Efficiency Vermont will explore ways to further assist participating builders with code compliance by filling out all other required energy code forms for the builder's signature, and submitting them to the appropriate town office (currently, the builders must make such filings).
- Redundancies between Efficiency Vermont and VGS in builder recruitment, marketing, and other elements of program implementation will be eliminated.

Impacts on Program Goals, Budgets and Cost-Effectiveness

Efficiency Vermont expects that the substantial appliance and lighting bonus incentive will be used by a sufficient percentage of program participants to offset most of the impact of the lower minimum lighting requirement. Because of this, per-participant savings for the program are expected to be similar to those of current Vermont Star Homes participants. Efficiency Vermont also expects to increase participation, relative to the Vermont Star Homes program, because of a simpler program design, elimination of differences in Efficiency Vermont and VGS requirements and lower minimum lighting requirements. Therefore, both electric and fossil fuel savings from the new program should be greater than those achieved through the Vermont Star component of the current program.

However, at least in the near-term, increases in electric savings relative to the Vermont Star component of the current program will likely be more than offset by the elimination of electric savings from the Vermont Advantage component of the current program. Some of those savings may simply be transferred to the Efficient Products Program, from which consumers can still obtain piecemeal lighting and clothes washer rebates. Moreover, in the longer term, as builders become more familiar with the new program, Efficiency Vermont expects that savings should become greater than the combined savings from the two (Vermont Star and Vermont Advantage) components of the current program.

Three factors will affect the program budget in 2002 and future years:

- The integration of program delivery with VGS should lead to tangible cost savings.
- Changes in distribution of rebate types and amounts, with increased "comprehensive" participation being counter-balanced by elimination of the Vermont Advantage piecemeal rebates.
- Efficiency Vermont will experience added costs associated with the transition to the new program, including costs associated with refining new implementation procedures.

All told, Efficiency Vermont does not expect the program changes to significantly change the 2002 program budget. The societal cost-effectiveness of the program will likely be a little lower in 2002 than in 2001. This is due to lower electric savings resulting from elimination of the Vermont Advantage piecemeal rebates. However, Efficiency Vermont expects that cost-effectiveness will be greater in 2003 and beyond, as participation increases, transition costs are eliminated, and the benefits of streamlining and integration with VGS are fully realized.

3. BUDGET AND GOAL MODIFICATIONS

Annual Request for Reallocation of Funds

As specified in the Energy Efficiency Utility Contract between Vermont Energy Investment Corporation and the Vermont Public Service Board, (Attachment B, Paragraph 11), this Plan provides an annual request for "re-allocation of funds between and among Core Programs" including the "carry-over" of unspent funds from the 2001 budget.

Reallocation of funds between and among Core Programs

This Plan presents, and requests approval of, modified annual budgets for 2001 and 2002 as well as quarterly and monthly budgets for 2002. Schedules A, B and C of this Plan provide the annual budget for all three Contract years and the quarterly and monthly budgets for 2002.

Adjustments made to projected program spending for 2001 and 2002 are based on implementation experience within the context of contractual goals and objectives that relate to allocation of resources among programs. Comments on major modifications are presented below.

Low Income Single Family

In the proposed budget revision for 2002, spending for the Low-Income Single Family (LISF) program is increased over the currently approved 2002 budget by 48%. Because this program is designed to "piggyback" on delivery of weatherization services by Vermont's low-income weatherization agencies, program activity can be characterized as "market-driven." The number of clients served by the Weatherization Program, and hence by the LISF program, through June 2001 has been higher than projected. The participation projection for the remainder of the year has therefore been increased by 32% to be more consistent with activity to date. Additionally, the number of participants in the Weatherization Program is expected to increase in 2002.

Dollars have also been added to cover a new Weatherization Program initiative through which agencies plan to revisit selected clients served prior to the Efficiency Vermont Contract. This initiative aims to provide energy efficiency measures that were not available at the time of an initial visit (e.g., fuel switching, light fixtures, refrigerators). Combined, these factors result in a projected increase in LISF spending for 2002 of $338,000. Because the modifications for this program are greater than the 15% variance allowed without prior approval, Efficiency Vermont requests Board approval for this change.

Commercial and Industrial Emerging Markets

Incentives and MWh goals in this program have been lowered by approximately 28%. These changes are associated with the Large Retrofit initiative for commercial and industrial customers, and are made for two reasons:

1) First-year experience with the Large Retrofit initiative has shown that a reasonable time frame for developing large retrofit projects in this initiative is typically from 1.5 to 2.5 years. The process typically involves measure identification and savings quantification by Efficiency Vermont, customer decisions as to whether to proceed with the project, inclusion of project funding in customer's next budget cycle and, finally, implementation. Due to this process, many of the projects currently under development are anticipated to complete in 2003.
2) Efficiency Vermont prioritizes the capture of lost opportunities over discretionary retrofit and allocates budgets accordingly.

Low Income Multifamily

The Low Income Multifamily program (REEP) 2001 budget and goals have been modified due to an anticipated 50% decrease in the number of Public Housing fuel switches. This reduction is a reflection of the fact that one to two budgeted major fuel switch projects may not come to fruition this year. Several fuel switches are currently in development and REEP is working to bring more of these projects to closure in 2002. Because these modifications may reduce the REEP budget by more than the 5% variance allowed without prior approval, Efficiency Vermont asks the Board for approval of this change.

Residential New Construction

This program's budget has been modified to reflect major changes in 2002 program design as well as the collaboration between Vermont Gas and Efficiency Vermont. The overall change for the Residential New Construction (RNC) budget from the old to the new program for 2002 is a mere $50 decrease. In 2001, the RNC budget has been reduced by approximately 11%. Based on low participation through the end of June of this year, Efficiency Vermont has revised estimates for home completions in 2001.

Dairy Farms

Since the recent departure of the Dairy Farms Program Manager, Efficiency Vermont has shifted management responsibilities to internal staff rather than hire a new Manager for the short period until the program is incorporated into the Commercial Energy Opportunities and Commercial & Industrial Emerging Markets programs in 2002. This action has resulted in unexpected under spending of staff dollars. Efficiency Vermont therefore seeks Board approval to under spend by 5.01% in 2001.

Residential Emerging Markets

Efficiency Vermont is requesting Board approval to under spend by more than 15% in the Residential Emerging Markets (REM) 2001 budget. Cost decreases are anticipated in all three REM initiatives, as follows:

- Customer Driven Initiative - the costs to deliver the self-audit tool and the follow-up survey were reduced through staffing and administrative efficiencies;
- Vendor Driven Initiative – participant numbers are expected to be well below the earlier projections of 300 participants for 2001 and 500 for 2002. Pilots are under way to serve customers through this mechanism but participants are projected to be at 75 for 2001 and 180 for 2002;
- Targeted High Use Initiative - the actual costs for the contractors to deliver these services is turning out to be lower than originally budgeted.

Shifting of Funds Between Sectors

Although there is some shifting reflected in our revised budgets, it is within the 5% allowable range for fund shifting. There is now a 47%-53% balance between the Commercial and Industrial and the Residential sectors in 2001 and in 2002. This compares with the recently approved June 20, 2001 sector split of 45%-55% in 2001 and 50%-50% split in 2002.

Request for carry-over of funds from 2001

As a result of market activity and increased program activity, the 2001 cap will be exceeded by $122,797. (See Schedule G for details.) Efficiency Vermont is requesting Board approval to exceed the 2001 cap by this amount. Efficiency Vermont does not anticipate the need to borrow funds in excess of amounts budgeted to cover 2001 expenses. When the 2001 Performance-Based Fee of $266,490 is included, actual cash collections from the fiscal agent will more than cover 2001 expenses. Notably, over the course of the three-year Contract period, the total three-year cap of $27,035,970 will not be exceeded.

It is possible that the final costs for 2001 will result in a carry-over of funds from 2001 to 2002. In late January 2002, when the final 2001 numbers are confirmed, Efficiency Vermont will either revise the request for over-spending the 2001 cap or request that the unused funds be carried over to 2002.

Schedule A

Efficiency Vermont Annual Budgets - Year 2000, Year 2001 and Year 2002

Core Programs	**Year 2000 Actual**	**Year 2001 Budget**	**Year 2002 Budget**	**Total, All Years**
Business Energy Services				
Commercial & Industrial Emerging Markets	$3,422	$678,887	$1,347,438	$2,029,748
Commercial & Industrial Commercial Energy Opportunities	1,706,972	2,913,557	3,233,361	7,853,889
Customer Credit Program	199,057	440,107	440,189	1,079,354
Dairy Farms	415,482	491,651	0	907,133
Sub-Total BES Core Programs	*$2,324,933*	*$4,524,202*	*$5,020,988*	*$11,870,123*
Residential Services				
Efficient Products	$1,575,960	$2,113,595	$1,598,878	$5,288,433
Low-Income Single Family	146,358	811,150	1,049,618	2,007,126
Low-Income Multifamily	725,423	981,559	1,458,829	3,165,811
Residential Emerging Markets	3,439	270,241	478,871	752,551
Residential New Construction	517,481	857,452	1,005,889	2,380,822
Sub-Total Residential Core Programs	*$2,968,662*	*$5,033,996*	*$5,592,086*	*$13,594,743*
Sub-Total All Core Programs	$5,293,594	$9,558,198	$10,613,074	$25,464,866
Supporting Services				
General Administration	88,336	188,469	213,776	490,582
Information Technology	136,510	281,365	276,228	694,103
Sub-Total Supporting Services	*$224,846*	*$469,834*	*$490,005*	*$1,184,685*
1.45% Non-Performance Based Fee	*80,017*	*145,406*	*160,995*	*386,418*
Sub-Total Prior to Performance-Based Fee	**$5,598,458**	**$10,173,438**	**$11,264,073**	**$27,035,970**

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Schedule B

Efficiency Vermont Quarterly Budgets - Year 2002

Core Programs	Jan 1 - Mar 31	April 1 - June 30	July 1 - Sept 30	Oct 1 - Dec 31	Total Year 2002
Commercial & Industrial Emerging Markets	$240,739	$236,754	$339,374	$530,571	$1,347,438
Commercial Energy Opportunities	629,657	630,053	702,525	1,271,126	3,233,361
Customer Credit Program	14,467	12,943	302,755	110,024	440,189
Dairy Farms	0	0	0	0	0
Sub-Total C&I Core Programs	*$884,863*	*$879,751*	*$1,344,653*	*$1,911,721*	*$5,020,988*
Efficient Products	$448,710	$359,789	$383,168	$407,211	$1,598,878
Low Income Single Family	264,902	277,846	250,289	256,582	1,049,619
Low Income Multifamily	208,784	250,811	352,585	646,649	1,458,829
Residential Emerging Markets	123,904	126,891	121,845	106,232	478,871
Residential New Construction	233,395	231,573	252,526	288,394	1,005,889
Sub-Total Residental Core Programs	*$1,279,695*	*$1,246,910*	*$1,360,412*	*$1,705,068*	*$5,592,086*
Sub-Total All Core Programs	$2,164,558	$2,126,661	$2,705,065	$3,616,789	$10,613,074
Supporting Services					
Administration/Mgmt	53,443	53,443	53,444	53,446	213,776
Information Technology	69,057	69,057	69,057	69,057	276,228
Sub-Total Supporting Services	*$122,500*	*$122,500*	*$122,501*	*$122,503*	*$490,004*
1.45% Non-Performance Based Fee	*33,162*	*32,613*	*41,000*	*54,220*	*160,995*
Total EVt Budget	**$2,320,220**	**$2,281,774**	**$2,868,566**	**$3,793,512**	**$11,264,073**

Schedule C

Efficiency Vermont Monthly Budgets - Year 2002

Core Programs	Jan-02	Feb-02	Mar-02	Apr-02	May-02	Jun-02	Jul-02	Aug-02	Sep-02	Oct-02	Nov-02	Dec-02	Total Year 2002
Commercial & Industrial Emerging Markets	$78,048	$83,350	$79,340	$79,262	$79,443	$78,050	$98,107	$98,121	$143,145	$144,016	$193,418	$193,136	$1,347,438
Commercial Energy Opportunities	204,864	216,981	207,812	214,067	211,118	204,868	229,831	238,241	234,452	301,546	294,785	674,795	3,233,361
Customer Credit Program	4,314	5,838	4,314	4,314	4,315	4,315	4,313	4,313	294,128	4,312	4,311	101,402	440,189
Dairy Farms	0	0	0	0	0	0	0	0	0	0	0	0	0
Sub-Total C&I Core Programs	*$287,227*	*$306,170*	*$291,467*	*$297,643*	*$294,875*	*$287,233*	*$332,252*	*$340,676*	*$671,726*	*$449,874*	*$492,514*	*$969,333*	*$5,020,988*
Efficient Products	$156,241	$136,627	$155,842	$153,692	$109,869	$96,228	$162,213	$119,831	$101,124	$121,589	$129,789	$155,833	$1,598,878
Low Income Single Family	85,546	89,762	89,594	89,149	106,152	82,544	82,465	82,482	85,342	86,026	85,376	85,180	1,049,619
Low Income Multifamily	60,455	71,326	77,003	76,918	78,145	95,749	95,641	115,798	141,145	159,577	180,905	306,167	1,458,829
Residential Emerging Markets	50,756	37,276	35,872	42,846	37,923	46,122	46,077	40,429	35,338	35,636	35,352	35,243	478,871
Residential New Construction	73,962	87,206	72,227	77,203	77,688	76,683	76,610	76,626	99,289	105,147	99,329	83,919	1,005,889
Sub-Total Residental Core Programs	*$426,960*	*$422,197*	*$430,538*	*$439,809*	*$409,777*	*$397,325*	*$463,007*	*$435,167*	*$462,238*	*$507,976*	*$530,751*	*$666,342*	*$5,592,086*
Sub-Total All Core Programs	$714,187	$728,366	$722,005	$737,452	$704,652	$684,557	$795,259	$775,843	$1,133,964	$957,850	$1,023,265	$1,635,675	$10,613,074
Supporting Services													
Administration/Mgmt	17,814	17,814	17,814	17,814	17,814	17,814	17,814	17,814	17,815	17,815	17,815	17,815	213,776
Information Technology	23,019	23,019	23,019	23,019	23,019	23,019	23,019	23,019	23,019	23,019	23,019	23,019	276,228
Sub-Total Supporting Services	*$40,833*	*$40,833*	*$40,833*	*$40,833*	*$40,833*	*$40,833*	*$40,833*	*$40,833*	*$40,834*	*$40,834*	*$40,834*	*$40,834*	*$490,004*
1.45% Non-Performance Based Fee	*10,948*	*11,153*	*11,061*	*11,285*	*10,810*	*10,518*	*12,123*	*11,842*	*17,035*	*14,481*	*15,429*	*24,309*	*160,995*
Total Evt Budget	**$765,968**	**$780,353**	**$773,899**	**$789,570**	**$756,295**	**$735,909**	**$848,215**	**$828,518**	**$1,191,833**	**$1,013,165**	**$1,079,528**	**$1,700,818**	**$11,264,073**

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Schedule D

Comparison of Year 2001 Budgets between June 20, 2001 and September 4, 2001 Submissions

Core Programs	Year 2001 6-20-01	Year 2001 09-04-01	over/(under)	% Program change	Sector % total: 06-20-01 Budgets	Sector % total: 09-04-01 Budgets	% Sector change
Commercial & Industrial Emerging Markets	$787,372	$678,887	($108,485)	-13.78%			
Commercial Energy Opportunities	2,680,179	2,913,557	233,378	8.71%			
Customer Credit Program	445,855	440,107	(5,748)	-1.29%			
Dairy Farms	517,597	491,651	(25,946)	-5.01%			
Sub-Total C&I Core Programs	***$4,431,004***	***$4,524,202***	**$93,199**	2.10%	45%	47%	2.17%
Efficient Products	$2,159,867	$2,113,595	($46,273)	-2.14%			
Low-Income Single Family	718,787	811,150	92,363	12.85%			
Low-Income Multifamily	1,192,327	981,559	(210,768)	-17.68%			
Residential Emerging Markets	348,550	270,241	(78,309)	-22.47%			
Residential New Construction	960,161	857,452	(102,710)	-10.70%			
Sub-Total Residential Core Programs	***$5,379,692***	***$5,033,996***	**($345,696)**	-6.43%	55%	53%	-2.17%
Sub-Total All Core Programs	***$9,810,696***	***$9,558,198***	***($252,498)***	-2.57%			
Supporting Services							
General Administration	187,447	188,469	1,022	0.55%			
Information Technology	281,126	281,365	239	0.09%			
Sub-Total Supporting Services	*$468,573*	*$469,834*	*$1,261*	0.27%			
non-performance based fee	*151,880*	*145,406*	*(6,473)*				
Total EEU Cost Budget	**$10,431,148**	**$10,173,438**	**($257,710)**	-2.47%			

Schedule E

Comparison of Year 2002 Budgets between June 20, 2001 and September 4, 2001 Submissions

Core Programs	Year 2001 6-20-01	Year 2001 09-04-01	over/(under)	% Program change	Sector % total: 06-20-01 Budgets	Sector % total: 09-04-01 Budgets	% Sector change
Commercial & Industrial Emerging Markets	$1,462,019	$1,347,438	($114,580)	-7.84%			
Commercial Energy Opportunities	3,257,626	3,233,361	(24,266)	-0.74%			
Customer Credit Program	438,778	440,189	1,411	0.32%			
Dairy Farms	0	0	0	0.00%			
Sub-Total C&I Core Programs	***$5,158,423***	***$5,020,988***	**($137,435)**	-2.66%	50%	47%	-2.44%
Efficient Products	$1,584,547	$1,598,878	$14,332	0.90%			
Low-Income Single Family	711,162	1,049,618	338,456	47.59%			
Low-Income Multifamily	1,447,788	1,458,829	11,041	0.76%			
Residential Emerging Markets	460,349	478,871	18,522	4.02%			
Residential New Construction	$1,005,939	$1,005,889	($50)	0.00%			
Sub-Total Residential Core Programs	***$5,209,785***	***$5,592,086***	**$382,301**	7.34%	50%	53%	2.44%
Sub-Total All Core Programs	***$10,368,208***	***$10,613,074***	***$244,866***	2.36%			
Supporting Services							
General Administration	201,790	213,776	11,986	5.94%			
Information Technology	276,467	276,228	(239)	-0.09%			
Sub-Total Supporting Services	*$478,257*	*$490,004*	*$11,747*	2.46%			
non-performance based fee	*159,899*	*160,995*	*1,096*				
Total EEU Cost Budget	**$11,006,364**	**$11,264,073**	**$257,709**	2.34%			

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Schedule F

EVt Budget and MWh Comparison: September 4, 2001 versus June 20, 2001

	Year 2000					
	Costs	MWh Savings	Costs	MWh Savings		
Total Year 2000	**$5,598,458**	**22,795**	**$5,598,458**	**22,795**	0	0

	Year 2001					
	June 20, 2001		**September 4, 2001**		**Change**	
Program	Budget	MWh **	Budget	MWh **	Budget	MWh **
Business Energy Services						
Commercial Energy Opportunities	$787,372	10,500	$678,887	12,000	($108,485)	1,500
Commercial & Industrial Emerging Markets	2,680,179	3,500	2,913,557	1,500	233,378	(2,000)
Customer Credit *	445,855	1,131	440,107	1,131	(5,748)	0
Dairy Farms	517,597	1,100	491,651	1,000	(25,946)	(100)
Sub-total Business Energy Services Programs	$4,431,004	15,100	$4,524,202	14,500	$93,199	(600)
Residential						
Efficient Products	$2,159,867	9,905	$2,113,595	11,090	($46,273)	1,185
Low Income Single Family	718,787	1,309	811,150	1,090	92,363	(219)
Low Income Multi Family	1,192,327	2,500	981,559	1,750	(210,768)	(750)
Residential Emerging Markets	348,550	400	270,241	1,150	(78,309)	750
Residential New Construction	960,161	1,200	857,452	520	(102,710)	(680)
Sub-total Residential Programs	$5,379,692	15,314	$5,033,996	15,600	($345,696)	286
Sub-Total All Core Programs	$9,810,696	30,414	$9,558,198	30,100	($252,498)	(314)
Supporting Services						
Administration/Mgmt	187,447		188,469		1,022	
Information Technology	281,126		281,365		239	
Sub-Total Supporting Services	$468,573		$469,834		$1,261	
1.45% non-performance based fee	151,880		145,406		(6,473)	
Total Year 2001	**$10,431,148**	**30,414**	**$10,173,438**	**30,100**	**($257,710)**	**(314)**

	Year 2002					
	June 20, 2001		**September 4, 2001**		**Change**	
Program	Budget	MWh **	Budget	MWh **	Budget	MWh **
Business Energy Services						
Commercial Energy Opportunities	$1,462,019	10,900	$1,347,438	12,000	($114,580)	1,100
Commercial & Industrial Emerging Markets	3,257,626	7,000	3,233,361	4,000	(24,266)	(3,000)
Customer Credit *	438,778	1,480	440,189	1,480	1,411	0
Dairy Farms	0	0	0	0	0	0
Sub-total Business Energy Services Programs	$5,158,423	17,900	$5,020,988	16,000	($137,435)	(1,900)
Residential						
Efficient Products	$1,584,547	7,656	$1,598,878	10,129	$14,332	2,473
Low Income Single Family	711,162	1,309	1,049,618	1,420	338,456	111
Low Income Multi Family	1,447,788	2,500	1,458,829	2,070	11,041	(430)
Residential Emerging Markets	460,349	630	478,871	1,400	18,522	770
Residential New Construction	1,005,939	1,400	1,005,889	690	(50)	(710)
Sub-total Residential Programs	$5,209,785	13,495	$5,592,086	15,709	$382,301	2,214
Sub-Total All Core Programs	$10,368,208	31,395	$10,613,074	31,709	$244,866	314
Supporting Services						
Administration/Mgmt	201,790		213,777		11,987	
Information Technology	276,467		276,228		(239)	
Sub-Total Supporting Services	$478,257		$490,005		$11,748	
1.45% non-performance based fee	159,899		160,995		1,096	
Total Year 2002	**$11,006,364**	**31,395**	**$11,264,073**	**31,709**	**$257,709**	**314**
Three Year Total	**$27,035,970**	**84,603**	**$27,035,970**	**84,603**	**($0)**	**0**

* *Customer Credit MWh Savings not included in overall Contract goal.*

** *MWh Targets presented for illustrative purposes only. The Contract calls for a single three-year goal.*

Schedule G
Year 2001 Spending Cap

Total Final Costs for Year 2000	$5,598,458
Year 2000 Budget Cap per 1/12/01 PSB Letter	$6,452,395
Final Year 2000 Carry-Over	$853,937
Year 2001 Cap per 1/12/01 PSB Letter	$9,196,704
Revised Year 2001 Cap (Year 2000 Carry-Over Added)	**$10,050,641**
Total Costs for Year 2001 per 09/04/01 Budget Revision	$10,173,438
(Over)/Under Revised Year 2001 Budget Cap	**($122,797)**